



$$\begin{aligned} & \text{[Equation 18 continued]} \\ & \text{18. } \end{aligned}$$

$$\Omega(\lambda) = -[\lambda(\lambda) - \lambda(\lambda)] - \underbrace{\delta(\lambda)}_{\kappa\sigma} + \underbrace{\xi(\lambda)}_{\gamma/\kappa} + \underbrace{\zeta(\lambda)}_{\Delta\rho}, \quad (1)$$

$$\begin{aligned} & \text{[Equation 18 continued]} \\ & \sigma \equiv \sqrt{B/\kappa}, \quad \tau \equiv \gamma/\kappa \\ & \delta \equiv \Delta_\perp/(\kappa\sigma), \quad \xi(\lambda) = \Delta\rho(4/3)\pi^3, \\ & \langle \xi(\lambda)\xi(\lambda') \rangle = 2\delta(\frac{\lambda}{\lambda'}), \\ & = 20 \quad \text{[Equation 18 continued]} \end{aligned}$$

$$\lambda_{+1} = \lambda_+ + \alpha(\lambda_+ - \lambda) \Theta(\lambda_+ - \lambda), \quad (2)$$

$$\begin{aligned} & \text{[Equation 18 continued]} \\ & \text{18,35,36. } \\ & N e^{i\lambda} b^\dagger b a^\dagger ba \rightarrow \int d\lambda \Theta(\lambda) \alpha \cdot \nabla \zeta(\lambda) \quad (1) \\ & \text{37. } \\ & \text{[Equation 18 continued]} \end{aligned}$$

(- )

23, III). The first two terms in (1) are dominant for  $n \gtrsim 100$ :  $\int_{\Omega} u^2 \nabla u \cdot \nabla v \, dx \approx \int_{\Omega} u^2 \nabla u \cdot \nabla v \, dx$ . The third term is smaller than the second by a factor of  $\frac{1}{n}$ .

24 [A] : : : 25 .

•  $\Omega(k^2)$  time complexity for  $\text{BFS}$  is  $\approx \mathcal{O}(10^{13})$ ,  
•  $\approx 51$ .  
•  $\approx 10^{-10}$ .  
•  $\approx 10^{-100}$  for  $\text{BFS}$ .

10. B. C. Lai, *J. Appl. Phys.*, **114**, 7561 (2013).
11. J. S. Lai, B. C. Lai, *J. Appl. Phys.*, **21**, 905 (1982).
12. J. S. Lai, B. C. Lai, *J. Appl. Phys.*, **16**, 125007 (2014).
13. J. S. Lai, B. C. Lai, *J. Appl. Phys.*, **124**,



91 . . B x, l . . , w 2.1 . . : , w fx . .  
 175 (2006).

92 . . x , . w r w w fx . . : , w . .  
 19, 165 (2007).

93 . . J . . w , 2 . . k , w . . : , w fx ,  
 17, 043001 (2008).

94 . . k , r , k . . : , w , R , . . : , w k ,